BONE DOCTOR
POSE CONTROL

Bone control scripts for enhancing and
expanding your pose collection

USER MANUAL

DAZ STUDIO
SCRIPT

Bone Doctor Pose Control User Manual

©2017, RiverSoft Art

Contents

Introduction

Get more from your expensive pose collection! Bone Doctor Pose Control is a suite of scripts for fixing, exploring, and improving your poses. Bone Doctor Pose Control works by manipulating the bone orientations of your figures and characters. It is designed to work with nearly any character... from Victoria 4 to Genesis 3, from Horse to Dragon, male or female... anything with bones!

Features

- **8 High Quality Bone Doctor Pose Control scripts to enhance and expand your pose collection**
- **Designed for any character or figure...** from Victoria 4 to Genesis 3, from Horse to Dragon... anything with bones
- Works with entire figures or only selected subtrees of the bone hierarchy
- Blend any action (e.g., Relax, Exaggerate, Symmetric etc) between 0% to 100% using Live Preview to find the perfect new pose
- Selectively control which parts of the body are affected (Genesis - Genesis 8 only, though may work with other characters)
- Settings are automatically saved and restored
- **[BONUS] 2 Extra scripts to Convert from Genesis 3 Pose to Genesis 8 Pose and back**

No poses are included with package.

How to use

Bone Doctor scripts are very easy to use and are designed to work with any posed character. To use a Bone Doctor script:

1. Select a posed character or figure. If you want the script to only affect a portion of figure of the figure, select the body part bone in the Scene tree.
2. Before starting a script, it is recommended to move the viewport camera so that it frames the selected figure or body part.
3. Double-click the Bone Doctor script to start.
4. Configure options. If Live Preview is checked, the Bone Doctor script will immediately execute and change the selected figure(s). If Live Preview is not checked, click the Preview button to see how your options will affect the figure(s).
5. *For Symmetric Pose and Selective Pose Scripts Only*. The perturbation slider controls the amount of randomness that occurs during script execution. However, moving the perturbation slider will **not** change the exact perturbation being performed (i.e., if you move the slider from 0.1 to 0.2 and then back to 0.1, the **exact same pose** will be shown). If you click the Preview button, the Symmetric Pose and Selective Pose Scripts will change the perturbation used.
6. When you are happy with your pose, click Ok.
7. If you are unhappy with your pose, click Cancel and all changes are discarded.

Note that every button and every slider has a tooltip. If you get stuck, hover over a button to see information about it.

Bone Doctor Pose Control was a lot of fun to make and it has quickly become exceedingly useful to me. I hope you like it as much as I do. Thank you very much for purchasing the product!

RiverSoft Art

Exaggerate Pose

The Exaggerate Pose script exaggerates the "movement" in poses (i.e., the bones that are rotated or bent or twisted) by strengthening bone orientation values, making poses more extreme or tense. Arms will bend more, torsos will twist more, and necks will bend to the side more. The Exaggerate Pose script will work with **any character or figure**, anything with bones.

The script multiplies the X, Y, and Z rotations (or bend, twist, and side-side) of each bone by the Strength value. Therefore, a value over 100% (or 1) makes the bone rotation stronger (e.g., a strength of 105% will increase a

Figure 1 - Original Pose (Background), Exaggerated Pose (Foreground)

bone rotation by 1.05). Values

below 100% actually loosens or zeroes poses, by lessening the rotation values, until you get down to 0%, which would be equivalent to the Zero Figure Pose action. Note that bone rotations that are zero already cannot be exaggerated, so this script will not affect the Zero Figure Pose.

The script works by starting from the highest point in the selected bone hierarchy and traversing down the child bones and multiplying the strength against the orientation values.

If you want to only affect parts of a character, select the root of the subtrees you want to affect. For example, select the "Right Shoulder Bend" and change "Apply To" to Selected Node Subtree. Note that you can select multiple figures or multiple subtrees (by using CTRL-click in the Scene Pane) and the script will affect every subtree. The Obey Limits checkbox controls whether the exaggerated bone orientations can exceed the bone limits or not.

Alternatively, the Selective Exaggerate Pose script is designed for Genesis and above figures and uses knowledge of their bone structure to provide shortcuts into what part of the body you want to affect. For example, only affect the Right Arm and Left Leg.

The opposite of Exaggerate Pose script is the Relax Pose script. The Relax Pose script is faster for loosening a pose as no limit checking is necessary.

Selective Exaggerate Pose

The Selective Exaggerate Pose script exaggerates the "movement" in poses (i.e., the bones that are rotated or bent or twisted) for selected parts of the body by strengthening bone orientation values, making poses more extreme or tense. The Selective Exaggerate Pose script is designed for Genesis and above figures and uses knowledge of their bone structure to provide shortcuts into what part of the body you want to affect. For example, only affect the Right Arm and Left Leg. *The Selective Exaggerate Pose script is excellent for intensifying the pose **without** affecting the hands, feet, and head, which often you do not want to affect.*

Check the body parts that you want the script to exaggerate. The script works by starting from the highest point in the selected bone hierarchy and traversing down the child bones and multiplying the strength against the orientation values. The script multiplies the X, Y, and Z rotations (or bend, twist, and side-side) of each bone by the Strength value. Therefore, a value over 100% (or 1) makes the bone rotation stronger (e.g., a strength of 105% will increase a bone rotation by 1.05). When it finds a bone name it recognizes (e.g., lThigh or

Figure 2 - Original Pose (Background), Exaggerated Pose for Right Arm and Left Leg (Foreground)

rHand), it will stop if that corresponding body part is not checked. Note that this means **extremities (eyes, hands, feet) cannot be affected without the corresponding subtree (head, arms, legs) also being affected, and the core torso is always affected if entire figure is selected.** Values below 100% actually loosens or zeroes poses, by lessening the rotation values, until you get down to 0%, which would be equivalent to the Zero Figure Pose action for that body part. Note that bone rotations that are zero already cannot be exaggerated, so this script will not affect the Zero Figure Pose.

If you want to only affect parts of a character, select the root of the subtrees you want to affect. For example, select the "Right Shoulder Bend" and change "Apply To" to Selected Node Subtree. Note that you can select multiple figures or multiple subtrees (by using CTRL-click in the Scene Pane) and the script will affect every subtree. The Obey Limits checkbox controls whether the exaggerated bone orientations can exceed the bone limits or not.

Alternatively, the Exaggerate Pose script is not designed with knowledge of figures' skeletal structure, and therefore will work with **any character or figure**, anything with bones.

The opposite of Selective Exaggerate Pose script is the Selective Relax Pose script. The Selective Relax Pose script is faster for loosening a pose as no limit checking is necessary.

Relax Pose

The Relax Pose script relaxes, or loosens, entire figure, or selected subtree, poses by multiplying bone orientation values by the strength. The Relax Pose script will work with **any character or figure**, anything with bones.

The script multiplies the X, Y, and Z rotations (or bend, twist, and side-side) of each bone by the Strength value. 100% does not affect the current pose at all. 0% is the same as Zero Figure Pose action, at least for the selected bones.

The script works by starting from the highest point in the selected bone hierarchy and traversing down the child bones and multiplying the strength against the orientation values.

If you want to only affect parts of a character, select the root of the subtrees you want to affect. For example, select the "Right Shoulder Bend" and change "Apply To" to Selected Node Subtree. Note that you can select multiple figures or multiple subtrees (by using CTRL-click in the Scene Pane) and the script will affect every subtree.

Alternatively, the Selective Relax Pose script is designed for Genesis and above figures and uses knowledge of their bone structure to provide shortcuts into what part of the body you want to affect. For example, only affect the Right Arm and Left Leg.

Figure 3 - Original Pose (Background), Relaxed Pose (Foreground)

The opposite of Relax Pose script is the Exaggerate Pose script.

Selective Relax Pose

The Selective Relax Pose script Relaxes, or loosens, poses for selected parts of the body by multiplying bone orientation values (i.e., the bones that are rotated or bent or twisted) by the strength. The Selective Relax Pose script is designed for Genesis and above figures and uses knowledge of their bone structure to provide shortcuts into what part of the body you want to affect. For example, only affect the Right Arm and Left Leg. *The Selective Relax Pose script is excellent for loosening or relaxing the pose without affecting the hands, feet, and head, which often you do not want to affect.*

Check the body parts that you want the script to relax. The script works by starting from the highest point in the selected bone hierarchy and traversing down the child bones and multiplying the strength against the orientation values. The script multiplies the X, Y, and Z rotations (or bend, twist, and side-side) of each bone by the Strength value. 100% does not affect the current pose at all. 0% is the same as Zero Figure Pose action, at least for the selected bones. When it finds a bone name it recognizes (e.g., lThigh or rHand), it will stop if that corresponding body part is not checked. Note that this means **extremities (eyes, hands, feet) cannot be affected without the corresponding subtree (head, arms, legs) also being affected, and the core torso is always affected if entire figure is selected.**

Figure 4 - Original Pose (Background), Relax Pose for Legs (and core) Only (Foreground)

If you want to only affect parts of a character, select the root of the subtrees you want to affect. For example, select the "Right Shoulder Bend" and change "Apply To" to Selected Node Subtree. Note that you can select multiple figures or multiple subtrees (by using CTRL-click in the Scene Pane) and the script will affect every subtree.

Alternatively, the Relax Pose script is not designed with knowledge of figures' skeletal structure, and therefore will work with **any character or figure**, anything with bones.

The opposite of Selective Relax Pose script is the Selective Exaggerate Pose script.

Symmetric Pose

The Symmetric Pose script enhances on the symmetry tool built into Daz Studio to allow you to **blend** the left and right sides of a figure, instead of choosing just one side. It also adds the ability to slightly (or not so slightly) randomize, or perturb, the symmetry, giving a much more realistic look to symmetric poses by making them imperfect. For example, notice in Figure 5 how the arms and legs of the symmetric skeleton are subtly different, giving a much more interesting "symmetric" pose. The Symmetric Pose script will work with **any character or figure**, anything with bones.

The script works by starting from the highest point in the selected bone hierarchy and traversing down one side of the subtree to blend the left side orientation values with the corresponding right side orientation values. The Blend slider controls the blending: 0 (Use Left Side only) to 1

Figure 5 - Original Pose (Background), Symmetric Pose that is an equal blend of the left and right sides, with a perturbation of 11% (Foreground)

(Use Right Side only). Any other number is a blend of the two sides.

If you want to only affect parts of a character, select the root of the subtrees you want to affect. For example, select the "Right Shoulder Bend" and change "Apply To" to Selected Node Subtree. Note that you can select multiple figures or multiple subtrees (by using CTRL-click in the Scene Pane) and the script will affect every subtree. The Perturbation Strength specifies the maximum amount of change for a bone's orientation, based on its minimum/maximum range. The Obey Limits checkbox controls whether the randomized bone orientations can exceed the bone limits or not.

Alternatively, the Selective Symmetric Pose script is designed for Genesis and above figures and uses knowledge of their bone structure to provide shortcuts into what part of the body you want to affect. For example, only affect the Arms.

Selective Symmetric Pose

The Selective Symmetric Pose script enhances on the symmetry tool built into Daz Studio to allow you to **blend** the left and right sides of a figure, instead of choosing just one side. The Selective Symmetric Pose script script is designed for Genesis and above figures and uses knowledge of their bone structure to provide shortcuts into what part of the body you want to affect. For example, only affect the Arms. *The Selective Symmetric Pose script is excellent for making parts of the pose symmetric without affecting the hands, feet, or head.*

The Selective Symmetric Pose script also adds the ability to slightly (or not so slightly) randomize, or perturb, the symmetry, giving a much more realistic look to symmetric poses by making them imperfect. For example, notice in Figure 6 how the legs of the symmetric skeleton are quite different, giving a much more interesting "symmetric" pose.

Check the body parts that you want the script

Figure 6 - Original Pose (Background), Symmetric Pose that is an equal blend of the left and right arms, hands, and legs (and core), with a perturbation of 20% (Foreground). Notice how the legs are not symmetrical because of perturbation.

to make symmectrical. Note that you can only check or uncheck both sides of the body. The script works by starting from the highest point in the selected bone hierarchy and traversing down one side of the subtree to blend the left side orientation values with the corresponding right side orientation values. The Blend slider controls the blending: 0 (Use Left Side only) to 1 (Use Right Side only). Any other number is a blend of the two sides.

If you want to only affect parts of a character, select the root of the subtrees you want to affect. For example, select the "Right Shoulder Bend" and change "Apply To" to Selected Node Subtree. Note that you can select multiple figures or multiple subtrees (by using CTRL-click in the Scene Pane) and the script will affect every subtree. The Perturbation Strength specifies the maximum amount of change for a bone's orientation, based on its minimum/maximum range. The Obey Limits checkbox controls whether the randomized bone orientations can exceed the bone limits or not.

Alternatively, the Symmetric Pose script script is not designed with knowledge of figures' skeletal structure, and therefore will work with **any character or figure**, anything with bones.

Adjust Bones

The Adjust Bones script adds or subtracts bone orientation controls (usually Bend, Twist, Side-Side) by the specified amount. (This is different from the other scripts which multiply the bone orientations by a value). The propagation strength increases or decreases the effect for child bones; it is multiplied with the adjustment values, either making the adjustments stronger or weaker for each successive child bones. Use this value to make the effect taper off (or get stronger) as it goes down the bone hierarchy. For example, a propagation strength of greater than 1 will make each successive child bone bend, twist, or side-side more. This is useful for making a tail bend more as it gets closer to the tip of the tail.

Figure 7 - The Adjust Bones script was used to curl the dragon's tail.

Note that X, Y, Z do not always map to Bend, Twist, and Side-Side controls as their order depends on the bone selected. Also, whether values should go negative or positive depends on the side of the figure (i.e., on one side of the figure, adding positive values increases bend, and on the other side, adding positive values decreases bend). The Obey Limits checkbox controls whether the adjusted bone orientations can exceed the bone limits or not.

This script is useful for curling the fingers of a hand or curling a long neck or tail. It is **not** recommended to use this script with an entire figure and that is why there is no option for doing so. It is recommended that you select the exact bone hierarchy you want to affect, e.g., the base of the tail or the carpal bones of select fingers.

Cutoff Bones

The Cutoff Bones script cuts off, or clips, bone orientation values if their **absolute** values exceed the cutoff values. The Cutoff Bones script is useful for fixing bone orientations in a figure that are currently too extreme and leaving the rest of the bones alone. At its lowest values (0, 0, 0), Cutoff Bones acts like Zero Figure or Relax Pose.

Note that X, Y, Z do not always map to Bend, Twist, and Side-Side controls as their order depends on the bone selected.

Figure 8 - Original Pose (Background), Cutoff Pose for Z=0 (all Z values were reset to 0) (Foreground)

Convert Pose Genesis 3 Female to Genesis 8 Female/ Convert Pose Genesis 8 Female to Genesis 3 Female

The Convert Pose Genesis 3 Female->Genesis 8 Female converts a Genesis 3 Female Pose that has been applied to a Genesis 8 Female so that it looks correct on the new generation female. Apply the Genesis 3 Female Pose to the Genesis 8 Figure and then execute this script to fix it. The Convert Pose Genesis 8 Female to Genesis 3 Female does the opposite. It converts a Genesis 8 Female Pose that has been applied to a Genesis 3 Female so that it looks correct on the older generation female

Usually, you will want to convert the pose at 100%. However, it can be serendipitous and you can discover new poses by reducing the strength of the conversion.

Figure 9 - Left: Original Genesis 3 Female Pose on Victoria 7; Middle: Genesis 3 Female Pose applied to Victoria 8; Right: Converted Pose on Victoria 8